Diphylleia cymosa - Saxifraga micranthidifolia - Laportea canadensis Herbaceous Vegetation

COMMON NAME	Umbrella-leaf - Branch-lettuce - Wood-nettle Herbaceous Vegetation
SYNONYM	Rich Montane Seep (Cove Type)
PHYSIOGNOMIC CLASS	Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial forb vegetation (V.B)
PHYSIOGNOMIC GROUP	Temperate or subpolar perennial forb vegetation (V.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (V.B.2.N)
FORMATION	Saturated temperate perennial forb vegetation (V.B.2.N.f)
ALLIANCE	*Diphylleia cymosa - Saxifraga micranthidifolia* Saturated Herbaceous Alliance
CLASSIFICATION CONFIDENCE LEVEL	2
USFWS WETLAND SYSTEM	Palustrine

RANGE

Globally

This community occurs in the mountains of Georgia, North Carolina, Tennessee, and Virginia, and may range into South Carolina.

Great Smoky Mountains National Park

This community was sampled on both the Cades Cove and Mount Le Conte quadrangles. It is undoubtedly in other areas of the Park. On the Cades Cove quadrangle this community was sampled in the southern portion of the quadrangle on a high slope north of Rich Gap and in the eastern portion of the quadrangle along Pole Knob Branch. On the Mount Le Conte quadrangle, this community was sampled north of Cherokee Orchard, above Baskins Creek; and in the vicinity of Rainbow Falls, along Le Conte Creek.

ENVIRONMENTAL DESCRIPTION

Globally

These small wetlands occur at moderate to high elevations (below 4000 feet) on steep rocky slopes or in flat mucky seeps, sometimes associated with streams.

Great Smoky Mountains National Park

This community is found at low to intermediate elevations (samples ranged from 1960 to 4100), on steep, rocky slopes. Substrates range from boulders and rocks to saturated, gravelly muck. These are small wetlands that occur as inclusions in an otherwise forested landscape.

MOST ABUNDANT SPECIES

Globally

Stratum	Species
Herbaceous	*Diphylleia cymosa, Saxifraga micranthidifolia*

Great Smoky Mountains National Park

Stratum	Species
Herbaceous	*Diphylleia cymosa, (Saxifraga micranthidifolia)*

CHARACTERISTIC SPECIES

Globally

Diphylleia cymosa, Saxifraga micranthidifolia

Great Smoky Mountains National Park

See above

VEGETATION DESCRIPTION

Globally

A characteristic association of shaded seeps of the southern Appalachian Mountains, usually with overhanging canopies though trees not typically rooted in the seep itself. *Diphylleia cymosa* and *Saxifraga micranthidifolia* are characteristic and often dominant. Other characteristic species include *Laportea canadensis, Cardamine clematitis, Chelone lyonii, Chelone glabra,*

Chrysosplenium americanum, Boykinia aconitifolia, Cicuta maculata, Houstonia serpyllifolia, Viola cucullata, Viola macloskeyi ssp. *pallens, Lilium grayi, Oxypolis rigidior, Parnassia asarifolia, Tiarella cordifolia, Thalictrum clavatum, Trautvetteria caroliniensis, Stellaria corei,* and *Geum geniculatum.* Occurrences associated with more acidic soil conditions often contain *Juncus gymnocarpus* (G. Kauffman pers. comm.). This association often occurs in cove forests.

Great Smoky Mountains National Park
This community includes forested seeps in cove forests dominated by *Aesculus flava, Tilia americana* var. *heterophylla,* and *Betula alleghaniensis*. The seeps are open herbaceous vegetation, but canopy trees hang over the seep and can have up to 70 percent coverage. Shrubs are absent to sparse. Herbs have 50 to 100 percent coverage. Species with the highest coverages are *Diphylleia cymosa, Saxifraga micranthidifolia, Cimicifuga americana, Laportea canadensis, Tiarella cordifolia,* and *Impatiens pallida*. Other common herbs include *Ageratina altissima* var. *roanensis, Aster divaricatus, Chrysosplenium americanum, Euonymus obovatus,* and *Monarda didyma.* Bryophytes, other than *Sphagnum*, can have substantial cover on rocks.

OTHER NOTEWORTHY SPECIES
No information

CONSERVATION RANK G3

RANK JUSTIFICATION
This community occurs at moderate to high elevations of the southern Blue Ridge Mountains of western North Carolina, eastern Tennessee, southwestern Virginia, northern Georgia, and probably northwestern South Carolina. It occurs as a small patch community, embedded in a variety of regional forest types. While restricted in range and of small size, the community is relatively frequent within its range; many examples are protected, and threats are relatively few and minor.

DATABASE CODE CEGL004296

COMMENTS
Globally
These communities are often not large enough to be readily mappable but a distinctive habitat for many plants, invertebrate and vertebrate animals. The nominal species *Diphylleia cymosa* is a conspicuous component of this association but may also be found in seeps of varying canopy closure at middle and high elevations. The associated nominal species, *Saxifraga micranthidifolia* and *Laportea canadensis,* are indicative of shaded seeps (G. Kauffman pers. comm.). Another high elevation herbaceous seep association known from the southern Appalachians, *Impatiens (capensis, pallida) - Monarda didyma - Rudbeckia laciniata* var. *humilis* Herbaceous Vegetation, often occurs on boulder fields or in northern hardwood forests, at higher elevations than the association defined here.

Great Smoky Mountains National Park
This community is too small to map and often occurs under a forested canopy.

REFERENCES
Kauffman pers. comm., Nelson 1986, Schafale and Weakley 1990